C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

4.120.6.i 6 O'Clock (PEER 7) STAR Gas Detection Tests

C-A-OPI	M Procedures in	n which this Attachmen	t is used.
4.120.6			
	Hand Pro	ocessed Changes	
HPC No.	<u>Date</u>	Page Nos.	<u>Initials</u>
		<u> </u>	

V. Castillo

Date

Collider-Accelerator Department Chairman

Approved:

4.120.6.i 6 O'Clock (PEER 7) STAR Gas Detection Tests

PASS ANNUAL ACCEPTANCE TEST PROTOCOL

Division A Software Filename and Checksum: Title:	Checksum:
Division B Software Filename and Checksum: Title:	Checksum:
Initial testing complete:	
Test Team Leader's Name (Print):	Life Number:
Test Team Leader's Name (Sign):	Date:/
Acceptance test procedure complete (following repairs and retesting if required):	
Test Team Leader's Name (Print):	
Test Team Leader's Name (FIIIIt):	Life Number:
Test Team Leader's Name (Sign):	Date:/
Test results reviewed by:	
Safety Section Head's Name (Print):	Life Number:
Safety Section Head's Name (Sign):	Date:/
Test results accepted by Radiation Safety Committee:	
· · · · · · · · · · · · · · · · · · ·	Life Number
RSC Member's Name (Print):	Life Number:
RSC Member's Name (Sign):	Date:/

1.1 Current Source Test of STAR West Gas Detector, 6XAS1, in Mode 8 CONN Voltmeter to Div A: Mod 11 Input 3, 1006B **CONN** Voltmeter to **Div B:** Mod 6 Input 1, **1006B** CONN Current Srce to Tp 3(+), Tp 4(-) 6XAS1 pcb in Div A cab 1006B Peer 7 in Mode 8 **PLACE** □ VERIFY Peer 7 is in Restricted Access MODE 8 RAISE Current value (~ 1.7 mA) for Level 1 response at MCR □ VERIFY Response at MCR is LEVEL 1 RECORD Current value $\sim 1.4\overline{V}$ Div A vltg: V Div B vltg: V RECORD Current value (~ 2.5 mA) for Level 2 response at MCR RAISE Response at MCR is □ VERIFY LEVEL 2 Current value **RECORD** $\sim 1.6\overline{\mathrm{V}}$ Div A vltg: _____ V Div B vltg: ____ V **RECORD** RAISE Current value (~ 4.1 mA) for Alarm response at MCR Response at MCR is □ VERIFY **ALARM** RECORD Current value Div A vltg: _____ V Div B vltg: ____ V ~ 2.0V RECORD Fan 6XEF1 is □ VERIFY ON □ VERIFY Fan 6XEF2 is ON □ VERIFY Vent 6XAV1 is **OPEN** □ VERIFY Vent **6XAV2** is **OPEN** □ VERIFY Evac & Exp alarm ON Peer 7 is in Safe Mode **□** VERIFY MODE 2 **LOWER** Current value for $\sim 1.6 \text{ V}$ output for Div A & B □ VERIFY Attempt to reset Alarm at MCR **FAIL LOWER** Current value for $\sim 1.4~V$ output for Div A & B □ VERIFY **OFF** Fan 6XEF1 is □ VERIFY Fan 6XEF2 is **OFF** Vent 6XAV1 is □ VERIFY CLOSED **CLOSED □** VERIFY Vent **6XAV2** is Evac & Exp alarm □ VERIFY **OFF LOWER** Current value for ~ 1.0 V output for Div A & B RESET Alarm at MCR MCR sees 6XAS1 as **□** VERIFY SAFE

[☐] Check acceptance of Current Source test of STAR West Gas detector, 6XAS1, in Mode 8

1.2		Current Sour	rce Test of West Gas Detector 6XAS1 in STAR in Mode 17	
		PLACE	Peer 7 in Mode 17	
		VERIFY	Peer 7 is in Restricted Access	MODE 17
		RAISE	Current value (~ 4.1 mA) for Alarm response at MCR	
		VERIFY	Response at MCR is	ALARM
		RECORD	Current value	mA
		RECORD	Div A vltg: V Div B vltg: V	~ 2.0V
		VERIFY	Fan 6XEF1 is	ON
		VERIFY	Fan 6XEF2 is	ON
		VERIFY	Vent 6XAV1 is	OPEN
		VERIFY	Vent 6XAV2 is	OPEN
		VERIFY	Evac & Exp alarm	ON
		VERIFY	Peer 7 is in Safe Mode	MODE 2
		LOWER	Current value for $\sim 1.4~V$ output for Div A & B	
		VERIFY	Fan 6XEF1 is	OFF
		VERIFY	Fan 6XEF2 is	OFF
		VERIFY	Vent 6XAV1 is	CLOSED
		VERIFY	Vent 6XAV2 is	CLOSED
		VERIFY	Evac & Exp alarm	OFF
		LOWER RESET	Current value for $\sim 1.0~V$ output for Div A & B Alarm at MCR	
		VERIFY	MCR sees 6XAS1 as	SAFE
1.3	Ch		cceptance of Current Source test of West Gas detector 6XAS1 in cree Test of West Gas Detector 6XAS1 in STAR in Mode 16	n STAR in Mode 17
1.3				
		PLACE VERIFY	Peer 7 in Mode 16 Peer 7 is in Controlled Access	MODE 16
				1,10221
	_	RAISE	Current value (~ 4.1 mA) for Alarm response at MCR	AT ADM
		VERIFY	Response at MCR is	ALARM
		RECORD RECORD	Current value Div A vltg: V Div B vltg: V	${\sim 2.0 \mathrm{V}}$ mA
		VERIFY	Fan 6XEF1 is	ON
		VERIFY	Fan 6XEF2 is	ON
		VERIFY	Vent 6XAV1 is	OPEN
		VERIFY	Vent 6XAV2 is	OPEN
		VERIFY	Evac & Exp alarm	ON
		VERIFY	Peer 7 is in Safe Mode	MODE 2
		LOWER	Current value for ~ 1.4 V output for Div A & B	

		VERIFY	Fan 6XEF1 is	OFF
		VERIFY	Fan 6XEF2 is	OFF
		VERIFY	Vent 6XAV1 is	CLOSED
		VERIFY	Vent 6XAV2 is	CLOSED
		VERIFY	Evac & Exp alarm	OFF
		LOWER RESET	Current value for $\sim 1.0~V$ output for Div A & B Alarm at MCR	
		VERIFY	MCR sees 6XAS1 as	SAFE
	Ch	eck for test ac	eceptance of Current Source test of West Gas detector 6XAS	S1 in STAR in Mode 16
1.4		Current Sour	rce Test of West Gas Detector 6XAS1 in STAR in Mode 2	
		PLACE	Peer 7 in Mode 17	
		VERIFY	Peer 7 is in Safe Access	MODE 2
		RAISE	Current value (~ 4.1 mA) for Alarm r esponse at MCR	
		VERIFY	Response at MCR is	ALARM
		RECORD	Current value	mA
		RECORD	Div A vltg: V Div B vltg: V	~ 2.0V
		VERIFY	Fan 6XEF1 is	ON
		VERIFY	Fan 6XEF2 is	ON
		VERIFY	Vent 6XAV1 is	OPEN
		VERIFY	Vent 6XAV2 is	OPEN
		VERIFY	Evac & Exp alarm	ON
		VERIFY	Peer 7 remains in Safe Mode	MODE 2
		LOWER	Current value for $\sim 1.4~V$ output for Div A & B	
		VERIFY	Fan 6XEF1 is	OFF
		VERIFY	Fan 6XEF2 is	OFF
		VERIFY	Vent 6XAV1 is	CLOSED
		VERIFY	Vent 6XAV2 is	CLOSED
		VERIFY	Evac & Exp alarm	OFF
		LOWER RESET	Current value for $\sim 1.0~V$ output for Div A & B Alarm at MCR	

1.5	(Current Sour	e Test of STAR West Ga	s Detector, 6XAS1, in Mo	de 24 and Bad Sen	sor check
		PLACE VERIFY	Peer 7 in Mode 24 Peer 7 is in No Access			MODE 24
		RAISE VERIFY RECORD RECORD	Response at MCR is Current value	for Alarm r esponse at Mo		ALARM — mA ~ 2.0V
		VERIFY VERIFY VERIFY VERIFY VERIFY	Fan 6XEF1 is Fan 6XEF2 is Vent 6XAV1 is Vent 6XAV2 is Evac & Exp alarm Peer 7 remains in No Ac	ccess		ON ON OPEN OPEN ON MODE 24
		VERIFY VERIFY VERIFY VERIFY VERIFY	Current value for ~ 1.4 V Fan 6XEF1 is Fan 6XEF2 is Vent 6XAV1 is Vent 6XAV2 is Evac & Exp alarm	output for Div A & B		OFF OFF CLOSED CLOSED OFF
		LOWER RESET VERIFY	Current value for $\sim 1.0 \text{ V}$ Alarm at MCR MCR sees 6XAS1 as	output for Div A & B		SAFE
		REVERSE	Current Source connect	ions		2.22
		RAISE VERIFY RECORD RECORD	Response at MCR is Current value	A) for Bad Sensor response		BAD SENSOR mA ~0.725V
		VERIFY	Evac & Exp alarm			ON
		RAISE RECORD RECORD	Current value (~ -0.03 m. Current value Div A vltg: V	A) for ~ 1V output Div B vltg:	V	${\sim 1.0 V}$ mA
		VERIFY	Evac & Exp alarm			OFF
		RESET VERIFY	Bad Sensor at MCR MCR sees 6XAS1 is			SAFE

[□] Check for acceptance of Current Source test of STAR West Gas detector 6XAS1 in Mode 24 and Bad Bad Sensor check

		DLACE	Peer 7 in Mode 8	
		PLACE VERIFY	Peer 7 in Mode 8 Peer 7 is in Restricted Access	MODE 8
		DISCONN	Current Source	
		VERIFY	Current Source	DISCONNECTED
	_	SPRAY	50% L.E.L. gas on 6XAS1 (~2 mins reaction)	
		RECORD	Trip Level: Div A vltg: V Div B vltg: V	
		VERIFY	Fan 6XEF1 is	ON
		VERIFY	Fan 6XEF2 is	ON
		VERIFY	Vent 6XAV1 is	OPEN
		VERIFY	Vent 6XAV2 is	OPEN
		VERIFY	Evac & Exp alarm	ON
		VERIFY	MCR sees Peer 7 is in Safe Mode	MODE 2
		ALLOW	50% L.E.L. gas dissipation (~ 2 mins)	
		RECORD	Quiescent Vltg: Div A vltg: V Div B vltg: V	
		VERIFY	Fan 6XEF1 is	OFF
		VERIFY	Fan 6XEF2 is	OFF
		VERIFY	Vent 6XAV1 is	CLOSED
		VERIFY	Vent 6XAV2 is	CLOSED
		VERIFY	Evac & Exp alarm	OFF
		RESET	Alarm at MCR	
		VERIFY DISCONN	MCR sees 6XAS1 as Voltmeter	SAFE
	Ch	eck for accept	ance of Gas Activation test of STAR West Gas detector 6XAS1 in M	ode 8
1.7		Current Sour	ce Test of STAR East Gas Detector, 6XAS2, in Mode 8	
		CONN CONN	Voltmeter to Div A: Mod 11 Input 0, 1006B Voltmeter to Div B: Mod 6 Input 2, 1006B	
		CONN	Current Srce to Tp 3(+), Tp 4(-) 6XAS2 pcb in Div B cab 1006B	
		PLACE	Peer 7 in Mode 8	
		VERIFY	Peer 7 is in Restricted Access	MODE 8
		RAISE	Current value (~ 1.7 mA) for Level 1 response at MCR	
		VERIFY	Response at MCR is	LEVEL 1
		RECORD	Current value	mA
		RECORD	Div A vltg: V Div B vltg: V	~ 1.4V
		RAISE	Current value (~ 2.5 mA) for Level 2 response at MCR	
		VERIFY	Response at MCR is	LEVEL 2
		RECORD	Current value	${\sim 1.6 \text{V}}$ mA
		RECORD	Div A vltg: V Div B vltg: V	~ 1.6V
		RAISE	Current value (~ 4.1 mA) for Alarm response at MCR	

7

Gas Activation test of STAR West Gas Detector, 6XAS1, in Mode 8

1.6

	VERIFY	Response at MCR is	ALARM
	RECORD RECORD	Current value Div A vltg: V Div B vltg: V	${\sim 2.0 \text{V}}$ mA
	VERIFY	Fan 6XEF1 is	ON
	VERIFY	Fan 6XEF2 is	ON
	VERIFY	Vent 6XAV1 is	OPEN
	VERIFY	Vent 6XAV2 is	OPEN
	VERIFY	Evac & Exp alarm	ON
	VERIFY	Peer 7 is in Safe Mode	MODE 2
	LOWER	Current value for $\sim 1.6~V$ output for Div A & B	
	VERIFY	Attempt to reset Alarm at MCR	FAIL
	LOWER	Current value for $\sim 1.4 \text{ V}$ output for Div A & B	
	VERIFY	Fan 6XEF1 is	OFF
	VERIFY	Fan 6XEF2 is	OFF
	VERIFY	Vent 6XAV1 is	CLOSED
	VERIFY	Vent 6XAV2 is	CLOSED
	VERIFY	Evac & Exp alarm	OFF
	LOWER RESET	Current value for $\sim 1.0~V$ output for Div A & B Alarm at MCR	
	VERIFY	MCR sees 6XAS2 as	SAFE
1.8	Current Sour	ce Test of East Gas Detector 6XAS2 in STAR in Mode 17	
	PLACE	Peer 7 in Mode 17	
	VERIFY	Peer 7 is in Restricted Access	MODE 17
	RAISE	Current value (~ 4.1 mA) for Alarm response at MCR	
	VERIFY	Response at MCR is	ALARM
	RECORD	Current value	mA
	RECORD	Div A vltg: V Div B vltg: V	~ 2.0V
	VERIFY	Fan 6XEF1 is	ON
	VERIFY	Fan 6XEF2 is	ON
	VERIFY	Vent 6XAV1 is	OPEN
		Vent 6XAV2 is	OI EIV
	VERIFY	Vent UAAV2 is	OPEN
	VERIFY	Evac & Exp alarm	
			OPEN
	VERIFY	Evac & Exp alarm	OPEN ON
	VERIFY VERIFY	Evac & Exp alarm Peer 7 is in Safe Mode	OPEN ON
	VERIFY VERIFY LOWER	Evac & Exp alarm Peer 7 is in Safe Mode Current value for ~ 1.4 V output for Div A & B	OPEN ON MODE 2
	VERIFY VERIFY LOWER VERIFY	Evac & Exp alarm Peer 7 is in Safe Mode Current value for ~ 1.4 V output for Div A & B Fan 6XEF1 is	OPEN ON MODE 2 OFF

		VERIFY VERIFY	Vent 6XAV2 is Evac & Exp alarm	CLOSED OFF
	_	LOWER	Current value for $\sim 1.0 \text{ V}$ output for Div A & B	
		RESET	Alarm at MCR	
		VERIFY	MCR sees 6XAS2 as	SAFE
	Ch	eck for test ac	eceptance of Current Source test of East Gas detector 6XAS2 in	n STAR in Mode 17
1.9		Current Soui	rce Test of East Gas Detector 6XAS2 in STAR in Mode 16	
		PLACE VERIFY	Peer 7 in Mode 16 Peer 7 is in Controlled Access	MODE 16
		RAISE	Current value (~ 4.1 mA) for Alarm response at MCR	47.4535
		VERIFY	Response at MCR is Current value	ALARM
		RECORD RECORD	Div A vltg: V Div B vltg: V	${\sim 2.0 \mathrm{V}}$ mA
		VERIFY	Fan 6XEF1 is	ON
		VERIFY	Fan 6XEF2 is	ON
		VERIFY	Vent 6XAV1 is	OPEN
		VERIFY	Vent 6XAV2 is	OPEN
		VERIFY	Evac & Exp alarm	ON
		VERIFY	Peer 7 is in Safe Mode	MODE 2
		LOWER	Current value for $\sim 1.4~V$ output for Div A & B	
		VERIFY	Fan 6XEF1 is	OFF
		VERIFY	Fan 6XEF2 is	OFF
		VERIFY	Vent 6XAV1 is	CLOSED
		VERIFY	Vent 6XAV2 is	CLOSED
		VERIFY	Evac & Exp alarm	OFF
		LOWER RESET	Current value for $\sim 1.0~V$ output for Div A & B Alarm at MCR	
		VERIFY	MCR sees 6XAS2 as	SAFE
	Ch	eck for test ac	eceptance of Current Source test of East Gas detector 6XAS2 in	STAR in Mode 16

1.10		Current Sou	arce Test of East Gas Detector 6XAS2 in STAR in Mode 2	
		PLACE VERIFY	Peer 7 in Mode 17 Peer 7 is in Safe Access	MODE 2
		RAISE VERIFY RECORD	Current value (~ 4.1 mA) for Alarm response at MCR Response at MCR is Current value	ALARM mA
		RECORD	Div A vltg: V Div B vltg: V	~ 2.0V
		VERIFY	Fan 6XEF1 is	ON
		VERIFY	Fan 6XEF2 is	ON
		VERIFY	Vent 6XAV1 is	OPEN
		VERIFY	Vent 6XAV2 is	OPEN
		VERIFY	Evac & Exp alarm	ON
		VERIFY	Peer 7 remains in Safe Mode	MODE 2
		LOWER	Current value for $\sim 1.4 \text{ V}$ output for Div A & B	
		VERIFY	Fan 6XEF1 is	OFF
		VERIFY	Fan 6XEF2 is	OFF
		VERIFY	Vent 6XAV1 is	CLOSED
		VERIFY	Vent 6XAV2 is	CLOSED
		VERIFY	Evac & Exp alarm	OFF
		LOWER RESET	Current value for $\sim 1.0~V$ output for Div A & B Alarm at MCR	
		VERIFY	MCR sees 6XAS2 is	SAFE
1.11	Ch		tance of Current source test of STAR East Gas detector, 6XAS	
		PLACE VERIFY	Peer 7 in Mode 24 Peer 7 is in No Access	MODE 24
	_	RAISE	Current value (~ 4.1 mA) for Alarm response at MCR	AT ADM
		VERIFY	Response at MCR is	ALARM
		RECORD RECORD	Current value Div A vltg: V Div B vltg: V	${\sim 2.0 \mathrm{V}}$ mA
		VERIFY	Fan 6XEF1 is	ON
		VERIFY	Fan 6XEF2 is	ON
		VERIFY	Vent 6XAV1 is	OPEN
		VERIFY	Vent 6XAV2 is	OPEN
		VERIFY	Evac & Exp alarm	ON
		VERIFY	Peer 7 remains in No Access	MODE 24
		LOWER	Current value for ~ 1.4 V output for Div A & B	

	VERIFY VERIFY VERIFY VERIFY	Fan 6XEF1 is Fan 6XEF2 is Vent 6XAV1 is Vent 6XAV2 is Evac & Exp alarm	OFF OFF CLOSED CLOSED OFF
	LOWER RESET	Current value for $\sim 1.0~V$ output for Div A & B Alarm at MCR	
	VERIFY	MCR sees 6XAS2 as	SAFE
	REVERSE	Current Source connections	
	RAISE VERIFY RECORD RECORD	Current value (~ -1.15 mA) for Bad Sensor response at MCR Response at MCR is Current value Div A vltg: V Div B vltg: V	BAD SENSOR $\frac{mA}{\sim 0.725V}$
	VERIFY	Evac & Exp alarm	ON
	RAISE RECORD RECORD	Current value (\sim -0.03 mA) for \sim 1V output Current value Div A vltg: V Div B vltg: V	${\sim 1.0 \mathrm{V}}$ mA
	VERIFY	Evac & Exp alarm	OFF
	RESET VERIFY	Bad Sensor at MCR MCR sees 6XAS2 is	SAFE
	ck for accepta Sensor check	nnce of Current Source test of STAR East Gas detector 6XAS2 in M	ode 24 and Bad
1.12	Gas Activation	on test of STAR East Gas Detector, 6XAS2, in Mode 8	
	PLACE VERIFY	Peer 7 in Mode 8 Peer 7 is in Restricted Access	MODE 8
	DISCONN VERIFY SPRAY RECORD	Current Source Current Source 50% L.E.L. gas on 6XAS2 (~2 mins reaction) Trip Level: Div A vltg: V Div B vltg: V	DISCONNECTED
	VERIFY VERIFY VERIFY VERIFY VERIFY	Fan 6XEF1 is Fan 6XEF2 is Vent 6XAV1 is Vent 6XAV2 is Evac & Exp alarm MCR sees Peer 7 is in Safe Mode	ON ON OPEN OPEN ON MODE 2
	ALLOW RECORD	50% L.E.L. gas dissipation (~ 2 mins) Quiescent Vltg: Div A vltg: V Div B vltg: V	,

		VERIFY	Fan 6XEF1 is	OFF
		VERIFY	Fan 6XEF2 is	OFF
		VERIFY	Vent 6XAV1 is	CLOSED
		VERIFY	Vent 6XAV2 is	CLOSED
		VERIFY	Evac & Exp alarm	OFF
		RESET	Alarm at MCR	
		VERIFY	MCR sees 6XAS2 as	SAFE
		DISCONN	Voltmeter	
	Ch	eck for accept	ance of Gas Activation test of STAR East Gas detector 6XA	S2 in Mode 8
1.13		Test of STAI	R Gas Detector 6XAS3 in Mode 8 – Div A, simulated output o	nly
		PLACE	Peer 7 in Mode 8	
		VERIFY	Peer 7 is in Restricted Access	MODE 8
		CONN	24 VDC to Input 0 STAR Iface Block I/O Div A	
		VERIFY	Fan 6XEF1 is	ON
		VERIFY	Fan 6XEF2 is	ON
		VERIFY	Vent 6XAV1 is	OPEN
		VERIFY	Vent 6XAV2 is	OPEN
		VERIFY	Evac & Exp alarm	ON
		VERIFY	MCR sees 6XAS3 is	EVAC
		VERIFY	MCR sees Peer 7 in Safe Mode	MODE 2
		DISCONN	24 VDC from Input 0 STAR Iface Block I/O Div A	
		VERIFY	Fan 6XEF1 is	OFF
		VERIFY	Fan 6XEF2 is	OFF
		VERIFY	Vent 6XAV1 is	CLOSED
		VERIFY	Vent 6XAV2 is	CLOSED
		VERIFY	Evac & Exp alarm	OFF
		RESET	Alarm at MCR	

[□] Check for acceptance of test of STAK Gas detector baass in Mode 8 – Div A, simulated output only

1.14		Test of STAR Gas Detector 6XAS3 in Mode 8 – Div B, simulated output only			
		PLACE	Peer 7 in Mode 8		
		VERIFY	Peer 7 is in Restricted Access	MODE 8	
		CONN	24 VDC to Input 0 STAR Iface Block I/O Div B		
		VERIFY	Fan 6XEF1 is	ON	
		VERIFY	Fan 6XEF2 is	ON	
		VERIFY	Vent 6XAV1 is	OPEN	
		VERIFY	Vent 6XAV2 is	OPEN	
		VERIFY	Evac & Exp alarm	ON	
		VERIFY	MCR sees 6XAS3 is	EVAC	
		VERIFY	MCR sees Peer 7 in Safe Mode	MODE 2	
		DISCONN	24 VDC from Input 0 STAR Iface Block I/O Div B		
		VERIFY	Fan 6XEF1 is	OFF	
		VERIFY	Fan 6XEF2 is	OFF	
		VERIFY	Vent 6XAV1 is	CLOSED	
		VERIFY	Vent 6XAV2 is	CLOSED	
		VERIFY	Evac & Exp alarm	OFF	
		RESET	Alarm at MCR		
		VERIFY	MCR sees 8XAS3 is	SAFE	
1.15	iices	-	ce of test of STAR Gas detector 6XAS3 in Mode 8 – Div B, simulated o R Gas Detector 6XAS3 in Mode 17 – Divs A&B, simulated output only		
		PLACE VERIFY	Peer 7 in Mode 17 Peer 7 is in Restricted Access	MODE 17	
		CONN CONN	24 VDC to Input 0 STAR Iface Block I/O Div A 24 VDC to Input 0 STAR Iface Block I/O Div B		
		VERIFY	Fan 6XEF1 is	ON	
		VERIFY	Fan 6XEF2 is	ON	
		VERIFY	Vent 6XAV1 is	OPEN	
		VERIFY	Vent 6XAV2 is	OPEN	
		VERIFY	Evac & Exp alarm	ON	
		VERIFY	MCR sees 6XAS3 is	EVAC	
		VERIFY	MCR sees Peer 7 in Safe Mode	MODE 2	
		DISCONN DISCONN	24 VDC from Input 0 STAR Iface Block I/O Div A 24 VDC from Input 0 STAR Iface Block I/O Div B		
		VERIFY	Fan 6XEF1 is	OFF	
		VERIFY	Fan 6XEF2 is	OFF	
		VERIFY	Vent 6XAV1 is	CLOSED	

	VERIFY VERIFY	Vent 6XAV2 is Evac & Exp alarm	CLOSED OFF					
	RESET	Alarm at MCR						
	VERIFY	MCR sees 6XAS3 is	SAFE					
☐ Check for acceptance of test of STAR Gas detector 6XAS3 in Mode 17 – Divs A&B, simulated output only								
1.16	Test of STA	R Gas Detector 6XAS3 in Mode 16 – Divs A&B, simulated out	tput only					
	PLACE VERIFY	Peer 7 in Mode 16 Peer 7 is in Controlled Access	MODE 16					
	CONN CONN	24 VDC to Input 0 STAR Iface Block I/O Div A 24 VDC to Input 0 STAR Iface Block I/O Div B						
	VERIFY	Fan 6XEF1 is	ON					
	VERIFY	Fan 6XEF2 is	ON					
	VERIFY	Vent 6XAV1 is	OPEN					
	VERIFY	Vent 6XAV2 is	OPEN					
	VERIFY VERIFY	Evac & Exp alarm MCR sees 6XAS3 is	ON EVAC					
	VERIFY	MCR sees Peer 7 in Safe Mode	MODE 2					
	DISCONN DISCONN	24 VDC from Input 0 STAR Iface Block I/O Div A 24 VDC from Input 0 STAR Iface Block I/O Div B						
	VERIFY	Fan 6XEF1 is	OFF					
	VERIFY	Fan 6XEF2 is	OFF					
	VERIFY	Vent 6XAV1 is	CLOSED					
	VERIFY	Vent 6XAV2 is	CLOSED					
	VERIFY	Evac & Exp alarm	OFF					
	RESET	Alarm at MCR						
	VERIFY	MCR sees 6XAS3 is	SAFE					
☐ Check for acceptance of test of STAR Gas detector 6XAS3 in Mode 16 – Divs A&B, simulated output only								

1.17		Test of STAR Gas Detector 6XAS3 in Mode 2 – Divs A&B, simulated output only				
		PLACE	Peer 7 in Mode 2			
		VERIFY	Peer 7 is in Safe Mode	MODE 2		
		CONN	24 VDC to Lumit 0 CTAD Ifood Block I/O Din A			
		CONN CONN	24 VDC to Input 0 STAR Iface Block I/O Div A 24 VDC to Input 0 STAR Iface Block I/O Div B			
		COIVIT	21 v De to input v off ite face block if o biv b			
		VERIFY	Fan 6XEF1 is	ON		
		VERIFY	Fan 6XEF2 is	ON		
		VERIFY	Vent 6XAV1 is	OPEN		
		VERIFY	Vent 6XAV2 is	OPEN		
		VERIFY	Evac & Exp alarm	ON		
		VERIFY	MCR sees 6XAS3 is	EVAC		
		VERIFY	MCR sees Peer 7 remain in Safe Mode	MODE 2		
		DISCONN	24 VDC from Input 0 STAR Iface Block I/O Div A			
		DISCONN	24 VDC from Input 0 STAR Iface Block I/O Div B			
		VERIFY	Fan 6XEF1 is	OFF		
		VERIFY	Fan 6XEF2 is	OFF		
	П	VERIFY	Vent 6XAV1 is	CLOSED		
		VERIFY	Vent 6XAV1 is Vent 6XAV2 is	CLOSED		
	П	VERIFY	Evac & Exp alarm	OFF		
		, 2222 2	2-10-0-2-p	011		
		RESET	Alarm at MCR			
		VERIFY	MCR sees 6XAS3 is	SAFE		
☐ Check for acceptance of test of STAR Gas detector 6XAS3 in Mode 2 – Divs A&B, simulated output only						
1.18	18 Test of STAR Gas Detector 6XAS3 in Mode 24 – Divs A&B, simulated output only					
		PLACE	Peer 7 in Mode 24			
		VERIFY	Peer 7 is in No Access	MODE 24		
		CONN	AANDO LA AA CTADAS DI LAODI A			
		CONN CONN	24 VDC to Input 0 STAR Iface Block I/O Div A 24 VDC to Input 0 STAR Iface Block I/O Div B			
			•			
		VERIFY	Fan 6XEF1 is	ON		
		VERIFY	Fan 6XEF2 is	ON		
		VERIFY	Vent 6XAV1 is	OPEN		
		VERIFY	Vent 6XAV2 is	OPEN		
		VERIFY	Evac & Exp alarm	ON		
		VERIFY	MCR sees 6XAS3 is	EVAC		
		VERIFY	MCR sees Peer 7 remain in	MODE 24		
		DISCONN	24 VDC from Input 0 STAR Iface Block I/O Div A			
		DISCONN	24 VDC from Input 0 STAR Iface Block I/O Div B			

		VERIFY	Fan 6XEF1 is	OFF				
		VERIFY	Fan 6XEF2 is	OFF				
		VERIFY	Vent 6XAV1 is	CLOSED				
		VERIFY	Vent 6XAV2 is	CLOSED				
		VERIFY	Evac & Exp alarm	OFF				
		RESET	Alarm at MCR					
		VERIFY	MCR sees 6XAS3 is	SAFE				
		for acceptance	ce of test of STAR Gas detector 6XAS3 in Mode 24 – Divs A&B, simula	nted				
1.19		Gas Activation	on test of STAR Gas-House Gas Detector, 6XAS4, in Mode 8					
		PLACE	Peer 7 in Mode 8					
		VERIFY	Peer 7 is in Restricted Access	MODE 8				
		SPRAY	50% L.E.L. gas on 6XAS4 (~2 mins reaction)					
		VERIFY	LOCAL Evac & Exp alarm	ON				
		ALLOW VERIFY	50% L.E.L. gas dissipation (~ 2 mins) LOCAL Evac & Exp alarm	OFF				
	Ch	eck for accept	ance of Gas Activation test of STAR Gas-House Gas detector 6XAS4	in Mode 8				
END OF TEST PROCEDURE								
TTL: Sign for completion of initial testing:								
	D	eate:/	_/					
TTL: Sign for completion of final testing:								
	D	oate:/	/					